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Utility Patent Application

of

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“Sanitary undergarment”

UNITED STATES LETTERS PATENT

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A SANITARY UNDERGARMENT

FIELD OF THE INVENTION

The present invention relates generally to sanitary underwear especially suitable for use with absorbent articles such as sanitary napkins, panty liners, and incontinence pads. More specifically, the present invention is most suitable for use with those absorbent articles that have underwear covering components (commonly known as "wings" or "side wrapping elements") that fold or wrap the sides of a wearer's thighs when the underwear is pulled up.

BACKGROUND OF THE INVENTION

Absorbent articles such as sanitary napkins, panty-liners, and incontinence pads are devices that are typically worn in the crotch region of underwear. These devices are designed to absorb and retain liquid and other discharges from the human body and to prevent body and clothing soiling. Sanitary napkins are a type of absorbent article worn by women with their underwear that is normally positioned between the wearer's legs, adjacent to the perineal area of the body. Sanitary napkins both with and without side flaps (or wings) are disclosed in the literature and are available in the marketplace.

Generally when sanitary napkins are provided with flaps, the flaps extend laterally from a central absorbent means and are intended

to be folded around the edges of the wearer's panties in the crotch region. Commonly, the flaps are provided with an attachment means for either affixing the flaps to the underside of the wearer's panties or to the opposing flap. The flaps are generally effective for preventing exudates from soiling the edges of the wearer's panties.

While sanitary pads having flaps are commonly viewed as providing better protection against soiling as compared to sanitary pads without flaps, some women find applying sanitary pads having flaps to be inconvenient for various reasons. For instance, some women find it to be difficult to attach the flaps to the underside of the crotch of their panties. This can be due to factors such as the tendency for the adhesive fasteners on the flaps to stick to themselves or to other parts of the sanitary napkin. Furthermore, the adhesive fasteners on the flaps also have a tendency to come unglued after an extended use and get stuck on the wearer's skin. As a result, some women still prefer a sanitary napkin without flaps. Some women who generally prefer a sanitary napkin with flaps, occasionally (such as during periods of light flow) prefer a sanitary napkin without flaps.

The patent literature provides several variations of sanitary pads having conventional flaps that attempt to solve some of these problems. Following are some of the examples:

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B6* U.S. Pat. No. 4,911,701 issued to Mavinkurve

U.S. Pat. No. 5,125,918 issued to Seidy

U.S. Pat. Nos. 5,154,715 and 5,221,275 issued to Van Iten

U.S. Pat. No. 4,940,462

Furthermore, numerous sanitary undergarments have also been provided in prior art. For example, U.S. Pat. Nos. 4,022,212 to Lovison; 4,560,381 to Southwell; 4,690,681 to Haunschild et al.; 4,813,950 to Branch; 4,880,424 to Rautenberg and 5,098,419 to Gold; Roberts; 5,546,607 to Mary K.; 5,944,708 to Philpott T.; all are illustrative of such prior art. While these units may be suitable for the particular purpose to which they address, they do not attempt to solve the problems associated with sanitary pads with wings.

SUMMARY

A need exists for a hygienic underwear that is comfortable, attractive and appropriate for use by adult and adolescent women and is similar in general appearance and feel to conventional panties. In particular, a need exists for an underwear which can conveniently and efficiently solve the problems faced by the

wearer when attempting to attach the wings or flaps of a sanitary pad to the underside of the wearer's panties. Furthermore, there exists a need for an underwear that provides a way to keep the flaps tucked in place for a long time, away from the wearer's skin, while still providing the protection of side flaps. Furthermore, there also exists a need for underwear which reduces shifting of the sanitary pad with wings to a minimum when worn by the wearer.

9/16/01 The present invention is ~~a~~ sanitary underwear ^{wear} used with an absorbent article, such as a sanitary napkin that has a pair of panty covering components (or "side wrapping elements"). The present invention is especially meant to provide coverage to the wearer's panties to reduce staining of the edges of the panty crotch (or "side soiling") when the underwear is pulled up adjacent to the wearer's body.

9/16/01 Another object of the present invention is to provide ~~an~~ underwear which is worn with an absorbent article, such as a sanitary napkin with wings or flap extensions and provide coverage to the wearer's panties to reduce side soiling (i.e., staining of the edges of the panty crotch).

9/16/01 It is another object of the present invention to provide ~~an~~ underwear to be used with an absorbent article, such as a sanitary

napkin with flaps that folds around the sides of the wearer's
panties yet away from the wearer's skin.

It is yet another object of the present invention to provide
underwear that allows the wings or the flaps in a sanitary pad to
fold around the sides of the wearer's panties for an extended
period of time.

It is still another object of the present invention to provide a
underwear that reduces crumpling and other types of transverse
deformation usually experienced by the wearer of a sanitary napkin
with wings.

These and other objects of the present invention will be more
readily apparent when considered in reference to the following
description and when taken in conjunction with the accompanying
drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

While the specification concludes with claims particularly
pointing out and distinctly claiming the subject matter which is
regarded as forming the present invention, it is believed that the
invention will be better understood from the following description
when taken in conjunction with the accompanying drawings in which:

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FIG. 1 is substantially a perspective overview of the preferred embodiment for the present invention.

FIG. 2 is substantially a plan view for the present invention showing an absorbent pad in an open position.

FIG. 3 is substantially a plan view for the present invention showing an absorbent pad in a closed position.

FIG. 4 is substantially an overview of the known prior art.

FIG. 5 is substantially a top view of an internal crotch portion.

FIG. 6 substantially illustrates the internal crotch portion when attached onto a prior art panty.

FIG. 7 substantially illustrates a perspective overview of a second embodiment for the present invention.

DETAILED DESCRIPTION OF THE DRAWINGS

Referring now in detail to the drawings wherein like characters correspond to like elements throughout the various views.

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In FIG. 1 is shown the preferred embodiment for the present invention wherein (10) substantially represents an overview of a sanitary undergarment, such as a panty, which is formed from a front body portion (12), a rear body portion (14), an external crotch portion (16) and an internal crotch portion (18), with external crotch portion (16) and internal crotch portion being substantially of the same shape and size.

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It is to be understood that sanitary undergarment or panty (10) can made from any suitable material of engineering choice, such as cotton, Nylon, Spandex, or the like and is made in various sizes of choice. It is to be also understood that such undergarments are usually sewn together by stitching, which not only prevents fraying but also is a suitable fastening means. Thus, the present invention is to be fastened together in the same manner but for clarity purposes of the drawings we do not show typical stitching or other type of fastening means, but it is to be inherent.

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Even though undergarments such as panties are well known, the following specification will clarify complete construction of the preferred embodiment for the undergarment (10) as illustrated in FIG.s 1-6. Wherein, external crotch portion (16) is shown having a first end (20) and a second end (24), and internal crotch portion (18) having a first end (22) and a second end (26). With the first end (20) of external crotch portion (16) being fixedly attached to first end (22) of internal crotch portion (18), such as by stitching (not shown). While second end (24) of external crotch portion (16) is fixedly attached to second end (26) of internal crotch portion (18), such as by stitching (not shown). Therefore, it can now be seen external crotch portion (16) and internal crotch portion (18) in combination form an internal opening (28).

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Further construction of undergarment (10) or panty, includes front body portion (12) having an upper waist section (30) and a lower crotch attachment section (32). While rear body portion (14) is shown having an upper waist section (34) and a lower crotch attachment section (36). With lower crotch attachment section (32) of front body portion (12) being fixedly attached to each first end (20 & 22), such as by stitching (not shown), and lower crotch attachment section (36) of rear body portion (14) being fixedly attached to each second end (24 & 26), such as by stitching (not shown). Thereby, attaching each body portion (12&14) to each crotch portion (16&18).

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Further construction of undergarment (10) or panty, includes front body portion (12) having a first side section (38) and a second side section (40) and with rear body portion (14) having a first side section (42) and a second side section (44). With the first side section (38) of front body portion (12) being fixedly attached to the first side section (42) of rear body portion (14), such as by stitching (not shown) and the second side section (40) of front body portion (12) being fixedly attached to the second side section (44) of rear body portion (14) such as by stitching (not shown).

It can now be seen that each portion (12,14,16, & 18) in combination form a sanitary undergarment (10) which is substantially in the shape of a panty, with the panty having an internal opening (28) between each crotch portion (16&18).

Referring now to FIG.s 2-6 which substantially represent a plan view for the present invention. In FIG.s 2 & 3, we show an absorbent pad (46) which can be substantially any typical prior art menstrual pad of choice such as those produced by "KOTEX", "STAYFREE", etc. or other types of suitable pads may include typical continence pads such as those produced by "DEPEND". Still further another suitable type of pad may include a diaper having wings, although the applicants are not aware of any available on the market today.

However, the applicants prefer an absorbent pad such as depicted herein, wherein the absorbent pad (46) includes a top surface (46-A), a bottom surface (46-B), a first lateral wing extension (46-C) and a second lateral wing extension (46-D), with each lateral wing extension (46-C & 46-D) being substantially opposed to each other.

Bottom surface (46-B) of absorbent pad (46) having an adhesively attached removable strip (48) thereon which is shown in ghost lines. First lateral wing extension (46-C) having a bottom surface

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(46-E), and second lateral wing extension (46-D) having a bottom surface (46-F). With bottom surface (46-E) of first lateral wing extension (46-C) having an adhesively attached removable strip (50) which is shown in ghost lines in FIG. 2, and bottom surface (46-F) of second lateral wing extension (46-D) having an adhesively attached removable strip (52) which is shown in ghost lines in FIG. 2.

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It is to be noted that FIG. 2 substantially represents a plan view for the absorbent pad (46) before each adhesive strip (48,50 & 52) has been removed and illustrates a first position. While FIG. 3 substantially represents a plan view for the absorbent pad (46) after each adhesive strip (48,50 & 52) has been removed and illustrates a second position.

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It will now be seen when each removable strip (48,50 & 52) is removed, then the bottom surface (46-B) of absorbent pad (46) can be easily positioned onto the top surface (18-A) of internal crotch portion (18) and held in a secure manner by adhesive residue. It is to be noted, for clarity purposes within the drawings, top surface (18-A) and bottom surface (18-B) are only shown within FIG. 5. Thereafter, each lateral wing extension (46-C & 46-D) can then be folded and inserted into internal opening (28) as depicted in FIG. 3. Whereby bottom surface (46-E & 46-F)

of each lateral wing extension (46-C & 46-D) is now secured onto bottom surface (18-B) of internal crotch portion (18).

It is to be understood that the present invention may include additional embodiments. For example, a second embodiment is shown in FIG. 7 which substantially represents an embodiment which would be most suitable for men, or boys who have medical problems such as incontinence problems, or the like. Whereby, the present invention is formed into a pair of typical boxer shorts (54).

Please note the applicants do not disclose or address the actual construction of the boxer shorts (54) as such shorts are very well known. However, the following specification teaches how the present pair of boxer shorts differs from the known prior art which is what the applicants contend to be the invention.

In FIG. 7 is shown a pair of boxer shorts (54) having an external fly portion (56) and an internal fly portion (58) with external fly portion (54) and internal fly portion (58) in combination forming an internal opening there between. Again it is to be noted that any type of suitable absorbent pad of user choice may be used, but the applicants prefer the pad (46) as taught herein. Whereby, the user can easily remove previously described adhesive strips (48, 50, & 52) and then position and adhesively attach pad (46) at a location of choice upon internal fly portion (58).

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Thereafter, folding each lateral wing extension (46-C & 46-D) and inserting each wing extension (46-C & 46-D) into internal opening (60) between internal fly portion (58) and external fly portion (56). Whereby, absorbent pad (46) and lateral wing extensions (46-C & 46-D) are now securely attached by adhesive residue to boxer shorts (54).

While particular embodiments of the present invention have been illustrated and described, it would be obvious to those skilled in the art that various other changes and modifications can be made without departing from the spirit and scope of the invention.

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